

Application No.: 10/787,443
Response dated Dec. 2, 2010
Reply to Office Action dated June 30, 2010

REMARKS

Claims 1-31 were pending in the present application at the time of the Office Action.

Claims 1-5, 7, 9-13, 17-20, 24-27 and 31 stand rejected under U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,157,687 to Tymes (“*Tymes*”).

Claims 8, 16, 23 and 30 stand rejected under U.S.C. § 103(a) as being unpatentable over *Tymes* in view of U.S. Patent No. 5,157,687 to Wang (“*Wang*”).

Claims 6-7, 14-15, 21-22 and 28-29 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

For at least the reasons stated below, the Applicants respectfully traverse the above rejections and objections.

Rejections Under 35 U.S.C. § 103(a) - *Tymes*

Claims 1-5, 7, 9-13, 17-20, 24-27 and 31 stand rejected under U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,157,687 to Tymes (“*Tymes*”). Without conceding that *Tymes* qualifies as prior art to the present claims, the Applicants respectfully traverse such rejections.

Though the Applicants generally disagree with such rejections, to expedite allowance of various pending claims, the following discussion will focus in part on particular independent and dependent claims and/or portions thereof. Note that such focus is in no way to be construed as the Applicants agreeing with any rejections not specifically discussed below.

In order for a prima facie case of obviousness to be established, the Manual of Patent Examining Procedure, Rev. 6, Sep. 2007 (“MPEP”) states the following:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that “rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

See the MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal

Application No.: 10/787,443

Response dated Dec. 2, 2010

Reply to Office Action dated June 30, 2010

Circuit statement with approval). Further, MPEP § 2143.01 states that “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art” (citing KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396 (2007)). Additionally, if a prima facie case of obviousness is not established, the Applicant is under no obligation to submit evidence of nonobviousness:

The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

Turning first to independent claim 1, such claim is directed to a system for use in a communication network, where the system comprises a mobile computing device. The Office Action, at page 4, states that *Tymes* discloses “A mobile computing device (fig. 3, 13)”. The Applicants respectfully disagree with such characterization of *Tymes*.

For example, referring to FIG. 1 of *Tymes*, item 13 is a base station, which is distinctly different from the *Tymes* remote units 15, which for example comprise hand-held data gathering units such as bar code readers. The Applicants submit that the *Tymes* base station 13 is not “a mobile computing device”, as stated in claim 1.

For example, as explained at col. 3 lines 21-24, the *Tymes* base stations are assigned to respective rooms or coverage areas. Also, as explained at col. 7 lines 36-58, the *Tymes* base stations are assigned to respective rooms or bays of a commercial establishment, where the base stations may be wall-mounted or desktop. Additionally, as explained at col. 8 lines 1-3, a base station may be “mounted” at the same location as the network host computer. Thus, the *Tymes* base station 13 is indeed stationary. The Applicants were unable to find any indication in the *Tymes* reference of the base station 13 being a mobile device.

Additionally, in alleging that *Tymes* shows a mobile computing device comprising the claimed “communication processor”, the Office Action at pages 5-6 states, “Tymes further teaches the base station in the host device may be considered as a single device (col. 8, lines 1-7); which is substantially implies the processor (20) of the host computer is incorporate to the base station, therefore, coupled between the base processing unit and the first and second communication transceivers.” For multiple reasons, the Applicants respectfully disagree.

Application No.: 10/787,443
Response dated Dec. 2, 2010
Reply to Office Action dated June 30, 2010

First, at col. 8 lines 1-7, *Tymes* merely discusses co-locating a base station and the network host computer and connecting such distinct entities with a parallel bus-to-bus interface, *not* physically combining such units. Secondly, even if for the sake of argument only a *Tymes* base station and a network host computer were combined in a single device, such a device would certainly not be a mobile device.

Accordingly, for at least the multiple reasons discussed above, the Applicants submit that claim 1 is allowable over *Tymes*, as are all claims depending therefrom, including claims 2-10. The Applicants also submit that each of claims 2-10 is independently allowable.

Turning next to claim 2, such claim depends from claim 1 and states, “wherein the communication processor comprises: a first processing unit coupled between the base processing unit and the first communication transceiver for converting data received by the first communication transceiver to a format for processing by the base processing unit in accordance with the set of communication software routines and for converting data processed by the base processing unit to a format for transmission by the first communication transceiver, and a second processing unit coupled between the base processing unit and the second communication transceiver for converting data received by the second communication transceiver to a format for processing by the base processing unit in accordance with the set of communication software routines and for converting data processed by the base processing unit to a format for transmission by the second communication transceiver”.

The Office Action, at page 6-7, states that the *Tymes* communication adapter 33 teaches the claimed “first processing unit”, and the *Tymes* RF transceiver 34 teaches the claimed “second processing unit. The Applicants respectfully disagree.

For example, in discussing claim 1, from which claim 2 depends, the Office Action asserts that the *Tymes* base station 13 is the claimed “mobile computing device”, the *Tymes* communication adapter 33 is the claimed “first communication transceiver”, the *Tymes* RF transceiver 34 is the claimed “second communication transceiver”, and the base station CPU 30 is the claimed “base processing unit”.

Now, however, the Office Action is essentially stating that the *Tymes* communication adapter 33 is coupled between the *Tymes* communication adapter 33 and the *Tymes* CPU 30. In other words, the Office Action has adopted the position that the communication adapter 33 is

Application No.: 10/787,443

Response dated Dec. 2, 2010

Reply to Office Action dated June 30, 2010

coupled between itself and the CPU 30. Such a position is clearly untenable. Similarly, the Office Action is adopting the position that the *Tymes* RF transceiver 34 is coupled between the RF transceiver 34 and the CPU 30. Such a position is similarly untenable.

Accordingly, for at least these additional reasons, the Applicants submit that claim 2 is allowable over *Tymes*.

Turning next to claim 3, such claim depends from claim 1 and states, “wherein the first communication transceiver operates in a wired subnetwork and the second communication transceiver operates in a wireless subnetwork”. The Office Action, at page 7, states that *Tymes* “discloses the system of claim 1 wherein the first communication transceiver operates in a wired subnetwork (network 11) and the second communication transceiver operates in a wireless subnetwork (Fig. 1, wireless network between base station 13 and terminal 15 and other base stations)”. The Applicants respectfully disagree with such characterization of *Tymes*.

For example, the only arguably mobile device in the *Tymes* system is the *Tymes* remote unit 15 (e.g., a handheld bar code reader). However, as clearly illustrated at FIG. 4 item 44 and discussed at col. 8 lines 41-45, the *Tymes* mobile unit 15 has only one transceiver, and such transceiver only conducts data communication with the *Tymes* base station 13 over an RF link (not communication link 11). Accordingly, for at least this additional reason, the Applicants submit that claim 3 is allowable over *Tymes*, as are all claims depending therefrom, including claims 4-7. The Applicants also submit that each of claims 4-7 is independently allowable.

Turning next to claim 4, such claim depends from claim 3 (and thus claim 1 also) and states, “wherein the wireless subnetwork comprises a backup network in the event of a failure in the wired subnetwork”. The Office Action, at page 4, states that *Tymes* “discloses the system of claim 3 wherein the wireless subnetwork comprises a backup network in the event of a failure in the wired subnetwork (Fig. 1, where the RF network between base station 14 and base station 13 is considered as the backup network)”. The Applicants respectfully disagree with such characterization of *Tymes*.

In discussing claim 1, from which claim 4 depends, the Office Action alleges that the *Tymes* communication link 11 is the claimed “first subnetwork” and the *Tymes* wireless RF network is the claimed “second subnetwork”. Since, in the analysis of claim 4, the Office Action does not revisit the discussion of the elements of claim 1 that are part of claim 4 through

Application No.: 10/787,443

Response dated Dec. 2, 2010

Reply to Office Action dated June 30, 2010

dependency, the Applicants must assume that the Office Action is relying on the analysis of claim 1 for such elements. Such being the case, the Applicants were unable to find any mention of a wireless RF network of *Tymes* being utilized as a backup network in the event of a failure of the communication link 11 of *Tymes*. Accordingly, for at least this additional reason, the Applicants submit that claim 4 is allowable over *Tymes*, as are all claims depending therefrom, including claims 5-7. The Applicants also submit that each of claims 5-7 is allowable.

Turning next to claim 5, such claim depends from claim 4 (and thus claims 3 and 1 also) and states, “wherein the communication processor is operable to test the wired subnetwork”. The Office Action, at pages 7-8, states that since testing is old and well known, it would be obvious to incorporate such operation into the *Tymes* system. Even if, for the sake of argument only, such position regarding testing being known is true, the Applicants submit that incorporating wired network test functionality into the only arguably mobile device in the *Tymes* system (*i.e.*, the remote terminal 15) is unreasonable since, as discussed previously, the *Tymes* remote terminal 15 is incapable of communicating via a wired communication network. Accordingly, for at least this additional reason, the Applicants submit that claim 5 is allowable over *Tymes*, as are all claims depending therefrom, including claims 6-7. The Applicants also submit that each of claims 6-7 is independently allowable.

Turning next to claim 9, such claim depends from claim 1 and states, “wherein the communication processor is operable to relay communication received by one of its first and second communication transceivers for retransmission by the other of its second and first communication transceivers”. The Office Action, at page 8, states that *Tymes* “discloses the system of claim 1 wherein the communication processor further includes means for relaying communication received by one of its first and second communication transceivers for retransmission by the other of its second and first communication transceivers (Col. 7, lines 63-66)”. The Applicants respectfully disagree with such characterization of *Tymes*. For example, col. 6 line 63 to col. 7 line 5 of *Tymes* discusses operation of the *Tymes* base station, not operation of a mobile device. As discussed previously, base station operation is not synonymous with mobile device operation. Accordingly, for at least this additional reason, the Applicants submit that claim 9 is allowable over *Tymes*.

Application No.: 10/787,443

Response dated Dec. 2, 2010

Reply to Office Action dated June 30, 2010

Turning next to claim 10, such claim depends from claim 1 and recites, among other things, “the communication processor of each mobile computing device being responsive to an out-of-range condition for the respective mobile computing device to initiate data communications by its said one communication transceiver to another of the plurality of mobile computing devices, the other of the mobile computing devices relaying data communications between the computer and the out-of-range data collection terminal”. The Office Action, at page 8, states that *Tymes* “discloses … the communication processor of each data collection terminal being responsive to an out-of-range condition for the respective portable data collection terminal to initiate data communications by its said one communication transceiver to another of the plurality of portable data collection terminals, the other of the data collection terminals relaying data communications between the computer and the first-named data collection terminal (Col. 21, lines 27-55)”. The Applicants respectfully disagree with such characterization of *Tymes*.

For example, at col. 21 lines 27-55, *Tymes* discusses handing off a mobile unit between base stations. There is no mention of a mobile unit communicating with another mobile unit. For example, there is no mention of a *Tymes* bar code reader communicating with another *Tymes* bar code reader, for any reason. Additionally, the Office Action appears to be improperly mixing operation of the *Tymes* base station 13 and data collection terminal 15. Accordingly, for at least these additional reasons, the Applicants submit that claim 10 is allowable over *Tymes*.

Turning next to claims 11-13 and 17, such claims share various characteristics with claims 1-3 and 9, discussed previously. Accordingly, the Applicants submit that claims 11-13 and 17 are allowable for at least reasons generally analogous to those discussed previously with regard to claims 1-3 and 9, respectively and where reasonably applicable.

Turning next to claims 18-20 and 24, such claims share various characteristics with claims 1-3 and 9, discussed previously. Accordingly, the Applicants submit that claims 18-20 and 24 are allowable for at least reasons generally analogous to those discussed previously with regard to claims 1-3 and 9, respectively and where reasonably applicable.

Turning next to claims 25-27 and 31, such claims share various characteristics with claims 1-3 and 9, discussed previously. Accordingly, the Applicants submit that claims 25-27 and 31 are allowable for at least reasons generally analogous to those discussed previously with regard to claims 1-3 and 9, respectively and where reasonably applicable.

Application No.: 10/787,443
Response dated Dec. 2, 2010
Reply to Office Action dated June 30, 2010

Rejections Under 35 U.S.C. § 103(a) – *Tymes* and *Wang*

Claims 8, 16, 23 and 30 stand rejected under U.S.C. § 103(a) as being unpatentable over *Tymes* in view of U.S. Patent No. 5,157,687 to *Wang* (“*Wang*”). Without conceding that *Tymes* and *Wang* qualify as prior art to the present claims, the Applicants respectfully traverse such rejections.

Turning first to claim 8, such claim depends from claim 1 and states, “the communication module is housed in a PCMCIA card”. The Office Action, at page 9, states that *Tymes* does not teach that the communication module is housed on a PCMCIA card. The Applicants agree. Then, however, the Office Action states that since *Wang* teaches that a communication module can be disposed on a PCMCIA card it would have been obvious to one of ordinary skill in the art to place the alleged communication module of *Tymes* (*i.e.*, the *Tymes* base station 13) on a PCMCIA card. For multiple reasons, the Applicants respectfully disagree with such statement.

First, for example, the claimed “communication module” comprises the first communication transceiver and the second communication transceiver. The *Wang* adapter card 100, however, does not comprise transceivers. For example, as illustrated at FIG. 1 and discussed at col. 4 lines 12-28, the *Wang* adapter card 100 does not comprise the RF communication module 120. Thus, even if one incorporated the *Wang* card into the *Tymes* system, the resulting system would not comprise the claimed “communication module” housed in a PCMCIA card.

Secondly, unlike the host computer of *Wang*, the *Tymes* remote terminal 15 (the only arguably mobile device of the *Tymes* system) has no PCMCIA structure. Thus, placing components of the remote terminal 15 on a PCMCIA structure would not make sense.

Accordingly, for at least these additional reasons, the Applicants submit that claim 8 is allowable over *Tymes* and/or *Wang*, individually or in reasonable combination.

Turning next to claims 16, 23 and 30, such claims share various characteristics with claim 8, discussed previously. Accordingly, the Applicants submit that claims 16, 23 and 30 are allowable for at least reasons generally analogous to those discussed previously with regard to claim 8, where reasonably applicable.

Application No.: 10/787,443
Response dated Dec. 2, 2010
Reply to Office Action dated June 30, 2010

Objections to Claims

Claims 6-7, 14-15, 21-22 and 28-29 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. The Applicants acknowledge with appreciation the Examiner's statement of allowability of such claims if rewritten in independent form. Nonetheless, as discussed previously, the Applicants submit that the respective claims from which claims 6-7, 14-15, 21-22 and 28-29 depend are allowable. Thus, the Applicants respectfully request that the objection to claims 6-7, 14-15, 21-22 and 28-29 be withdrawn.

Final Matters

The Office Action makes various statements, including without limitation statements regarding the pending claims; the *Tynes* and *Wang* references; 35 U.S.C. § 103; and one of skill in the art, that are now moot in view of the previous amendments and/or arguments. Accordingly, the Applicants will not address all of such statements at the present time. The Applicants expressly reserve the right to challenge any or all of such statements in the future should the need arise (e.g., if such statements should become relevant by appearing in a future rejection of any claim).

Summary

Based on at least the foregoing, the Applicants believe that claims 1-31 are in condition for allowance. Accordingly, the Applicants courteously solicit a Notice of Allowability with respect to all pending claims. If the Examiner disagrees or has any question regarding this submission, the Applicants respectfully request that the Examiner telephone the undersigned at 312-775-8000.

Application No.: 10/787,443
Response dated Dec. 2, 2010
Reply to Office Action dated June 30, 2010

The Commissioner is hereby authorized to charge any other fees required by this submission or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

Date: Dec. 2, 2010 Respectfully submitted,

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